

IN THE CLAIMS:

1. (Currently Amended) A method of manufacturing a semiconductor device comprising the steps of:

forming a semiconductor film on a substrate and then growing spherical or hemispherical grains on the surface of the semiconductor film;

diffusing an impurity to the grains grown on the surface of the semiconductor film; and  
removing the impurity product, which is generated in the step of diffusing the impurity, from the surface of the semiconductor film using hot water; and

removing native oxide on the semiconductor film after the step of removing the impurity product.

2. (Original) A semiconductor device as claimed in claim 1, wherein the semiconductor film is formed of a silicon material and phosphorus or arsenic is used as the impurity.

3. (Original) A method of manufacturing a semiconductor device as claimed in claim 1, wherein deionized water is used for the hot water.

4. (Original) A method of manufacturing a semiconductor device as claimed in claim 1, wherein the temperature of the hot water lies within the range of 30° to 80°.

5. (Original) A method of manufacturing a semiconductor device as claimed in claim 1, wherein the semiconductor film which contains the impurity and the grains are formed thereon is used as one of electrodes of a capacitor.

8. (Original) A method of manufacturing a semiconductor device as claimed in claim 7, wherein the native oxide is removed using a mixed solution of hydrofluoric acid and deionized water.